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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,307	11/01/2001	Jerald K. Rasmussen	56710US002	2390
32692 75	590 09/10/2003			
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER	
			SIEW, JEFFREY	
			ART UNIT	PAPER NUMBER
			1637	$\alpha$
			DATE MAILED: 09/10/2003	• /

Please find below and/or attached an Office communication concerning this application or proceeding.

	Applicati n No.	Applicant(s)				
	10/001,307	RASMUSSEN ET AL.				
Office Action Summary	Examin r	Art Unit				
	Jeffrey Siew	1637				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status	36(a). In no event, however, may a reply be timed within the statutory minimum of thirty (30) day fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
1) Responsive to communication(s) filed on 24 J	<u>une 2003</u> .					
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Th	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims						
4)⊠ Claim(s) 16-44 is/are pending in the applicatio	n					
4a) Of the above claim(s) <u>45 and 46</u> is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>16,17,23-31 and 40-44</u> is/are rejected.						
7)⊠ Claim(s) <u>18-22 and 32-39</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)⊠ The drawing(s) filed on <u>01 November 20001</u> is/a	are: a)⊠ accepted or b)⊡ objected	to by the Examiner.				
Applicant may not request that any objection to the	e drawing(s) be held in abeyance. Se	ee 37 CFR 1.85(a).				
11) The proposed drawing correction filed on	is: a)□ approved b)□ disappro	ved by the Examiner.				
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents	s have been received.					
2. Certified copies of the priority documents	s have been received in Applicati	on No				
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) ☐ The translation of the foreign language provisional application has been received.						
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	· —	r (PTO-413) Paper No(s) Patent Application (PTO-152)				

Art Unit: 1637

### **DETAILED ACTION**

# THE FOLLOWING IS A NEW GROUND OF REJECTION NECESSITATED BY DISCOVERY OF NEW REFERENCE

# Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 16,17,23-27,28-30, 31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,395,483 in view of Ota et al (US4,332,075 June 1, 1982).

Claims 16,17,23-27,28-30 & 31 are drawn to article with polymeric substrate with an electrically conductive coating and topographical surface greater than projected surface.

Claims 1-3 of US6,395,483 are drawn to array with polymeric substrate with mask layer and topographical surface is greater than projected surface, linking agents and reactants.

Claims 1-3 of US6,395,483 are not drawn to electrically conductive layer.

Ota teach that mask layer in forming arrays using metal.

Art Unit: 1637

One of ordinary skill in the art would have been motivated to apply Ota et al's metal mask to Patil et al's arrays with mask layers in order to form a uniform and insulating layer. It was well known and commonly practiced in the art to apply metal mask to manufacture of metal substrates for use in arrays. It would have been prima facie obvious to apply Ota et al's metal mask to Patil et al's array in order to produce uniform layers in desired patterns.

2. Claims 16,17,23-27,28-30, 31,40 & 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,593,089 in view of Ota et al (US4,332,075 June 1, 1982).

Claims 16,17,23-27,28-30, 31,40 & 41 are drawn to article with polymeric substrate with an electrically conductive coating and topographical surface greater than projected surface.

Claims 1-13 of US6,593,089 are drawn to array with polymeric substrate with relaxed oriented film with mask layer and topographical surface is greater than projected surface, linking agents and reactants.

Claims 1-13 of US6,593,089 are not drawn to electrically conductive layer.

Ota teach that mask layer in forming arrays using metal.

One of ordinary skill in the art would have been motivated to apply Ota et al's metal mask to Patil et al's arrays with mask layers in order to form a uniform layer with discrete patterns. It was well known and commonly practiced in the art to apply metal mask to manufacture of metal substrates for use in arrays. It would have been prima facie obvious to

Art Unit: 1637

apply Ota et al's metal mask to Patil et al's array in order to produce uniform layers in desired patterns.

# Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16,17,23-27,28-30, 31, 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Patil et al (US6,395,483 May 28, 2002).

Patil et al teach an article with a polymeric substrate and electrically conductive coating disposed on substrate and having a projected surface area and a topographical surface area wherein the topographical surface area is greater than the projected surface area (see whole doc. particularly claim 1 and col. 10 line 60 "teaching that the **mask layer** is metal such as titanium or gold"). Patil et al's mask layer would fulfill the limitation of electrically conductive coating.

They further teach manufacturing the article using shrinkage of the polymeric substrate (see col. 8 line 15-29). The teach the articles in array format have attached linking elements such as alactozone and DNA (see col. 11 line 64 and claim 3).

Page 5

Application/Control Number: 10/001,307

Art Unit: 1637

#### **SUMMARY**

4. Claims 18-21 are objected to for depending on rejected claim. There is no prior art that teach or suggest an article with electrically conductive polymer coating comprising at least one moiety having pi electron delocalization on a substrate with the topographical surface area is greater than projected area. Claim 22 is objected to for depending on rejected claim. There is no prior art that teach or suggest an article with electrically conductive polymer coating acetylene or polyacetylene on a substrate with the topographical surface area is greater than projected area. Concerning claims 32-39 are objected for depending on rejected claim. There is no prior art that teach or suggest an a method of making an article with a shrinkable polymeric substrate and coating with dopant and permitting a monomer to contact dopant thereby forming electrically conductive coating. Ratcliffe et al (WO01/29547) is enclosed as a reference of interest.

Art Unit: 1637

#### CONCLUSION

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Siew whose telephone number is (703) 305-3886 and whose e-mail address is Jeffrey. Siew@uspto.gov. However, the office cannot guarantee security through the e-mail system nor should official papers be transmitted through this route. The examiner is on flex-time schedule and can best be reached on weekdays from 6:30 a.m. to 3 p.m. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (703)-308-1119.

Any inquiry of a general nature, matching or filed papers or relating to the status of this application or proceeding should be directed to the <u>Tracey Johnson</u> for Art Unit 1637 whose telephone number is (703)-305-2982.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Center numbers for Group 1600 are Voice (703) 308-3290 and FAX (703)-308-4242.

JEFFREY SIEW
PRIMARY EXAMINER

September 7, 2003